

The Effects of Photographic Activity Schedules on Moderate-to-Vigorous Physical Activity in Children with ASD

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Physical Activity and Autism Spectrum Disorders



1. Ogden, Carroll, Kit, & Flegal (2012)
2. American Psychological Association (2013)
3. Hinckson et al (2013)
4. U.S. Department of Health and Human Services (2012)

Physical Activity and Autism Spectrum Disorders

MVPA

- Moderate-to-vigorous physical activity reduces risks associated with obesity in children¹

OSRAC²

- Observational System for Recording Physical Activity Codes

Activity Schedules³

- Sequence of pictures that prompt engagement
- Increase number of engaging activities

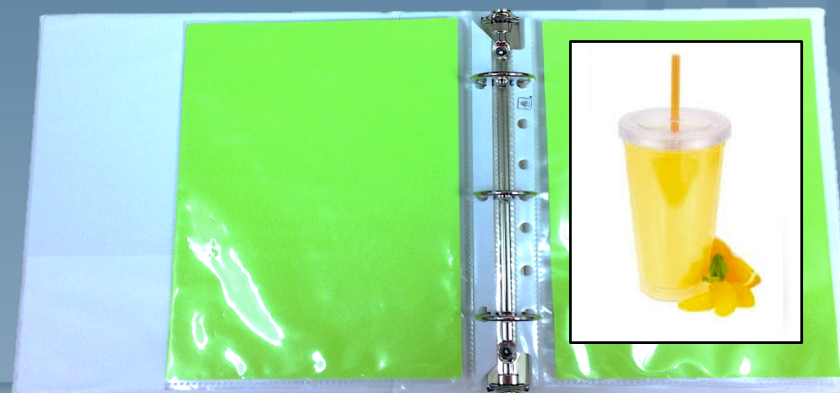
Purpose

- Assess the effects of photographic activity schedules on MVPA and varied play across two contexts for preschoolers with ASD

1. U.S. Department of Health and Human Services (2012)
2. Brown, et al. (2009), Hustyi, Normand, Larson, & Morley (2012)
3. McClannahan & Krantz (2010), Akers, Higbee, Pollard, Pellegrino, & Gerencser (2016), Torres, DeBar, Reeve, Meyer, & Covington (2018)

Settings & Materials

Hustyi, Normand, Larson, & Morley (2012)



Method

- Participants
 - Three 4-year-old preschoolers with ASD
 - Mastery of activity schedules (academic/leisure items)
- Dependent Variable
 - Percent MVPA
 - Percent activity schedule following
 - Number of different activities

Design and Conditions

∞ Non-concurrent multiple baseline across participants

Context Assessment (Multielement design)
Picture-Activity Correspondence Pretraining



Baseline
Schedule probe Generalization probe

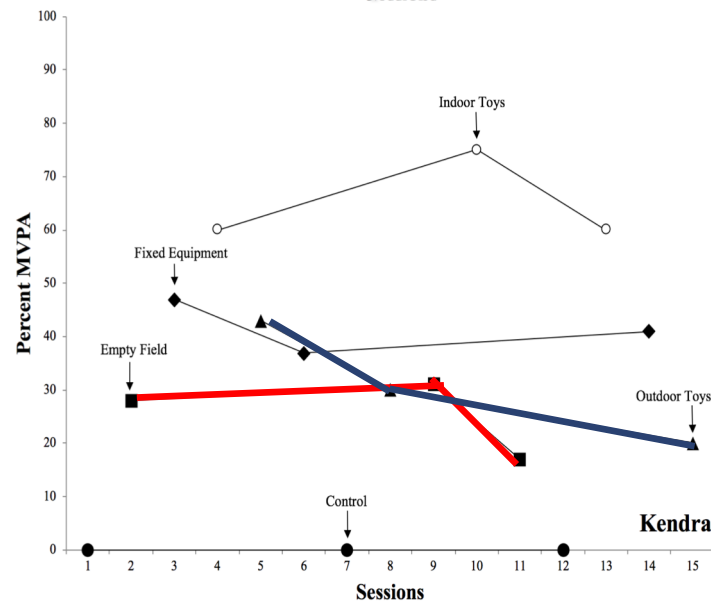
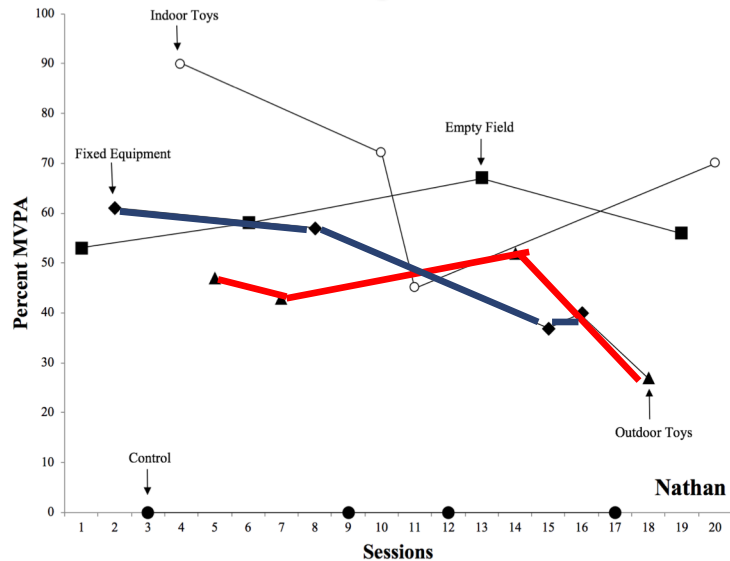
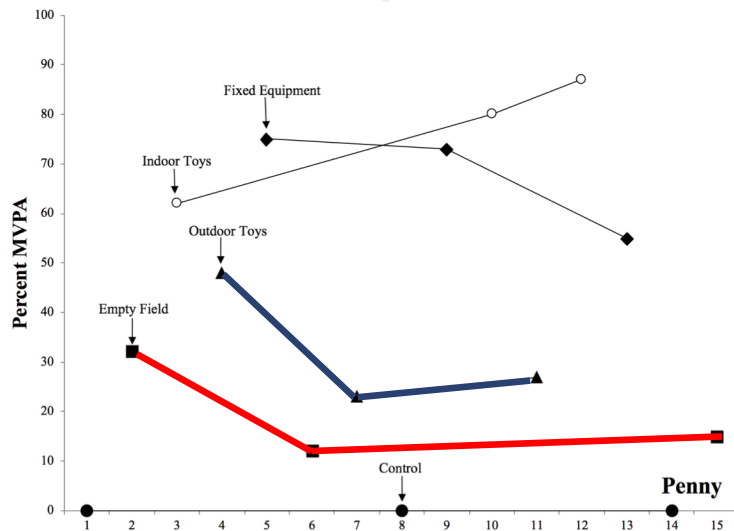


Activity Schedule Teaching
No schedule probe Generalization probe



2-week Maintenance Probe

Context Assessment Results

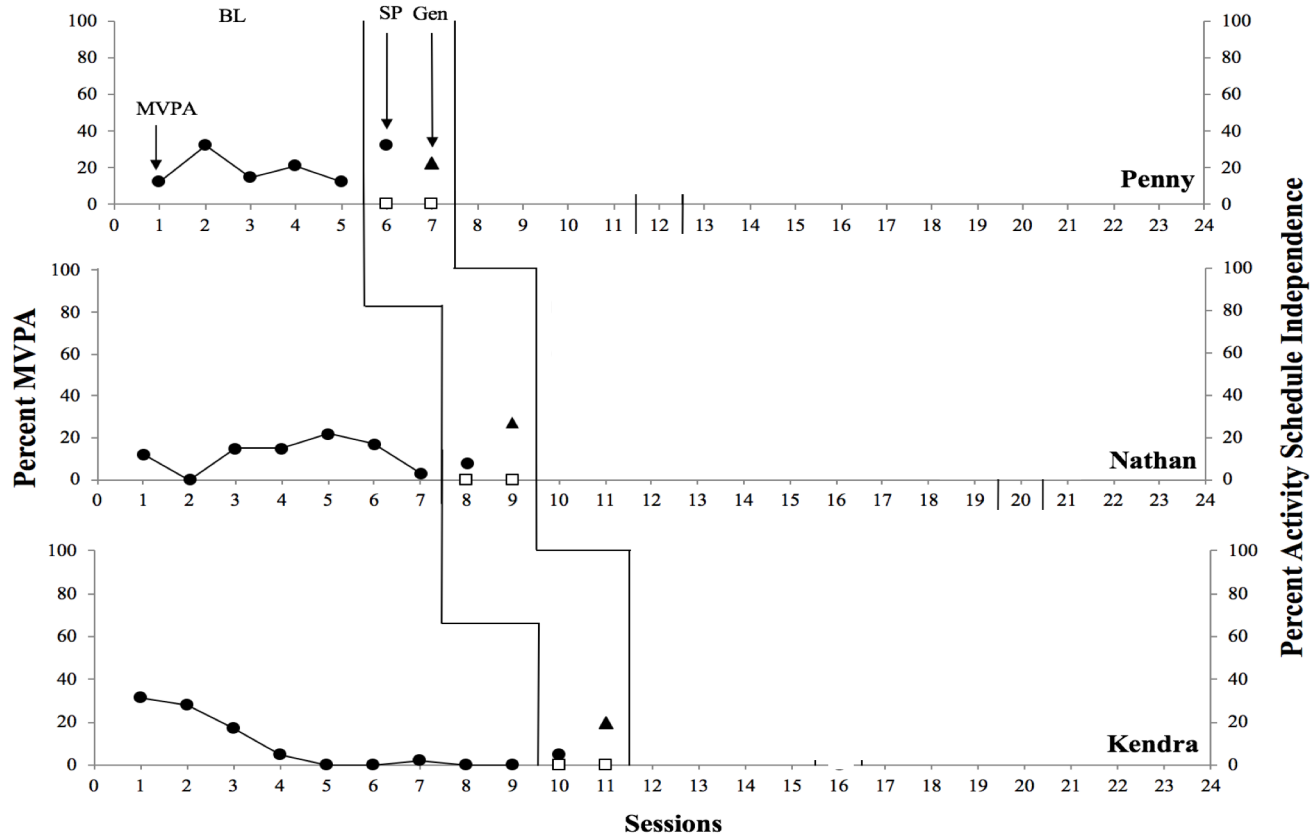


- Penny:** Empty Field
 - Outdoor Toys
- Nathan:** Outdoor Toys
 - Fixed Equipment
- Kendra:** Empty Field
 - Outdoor Toys

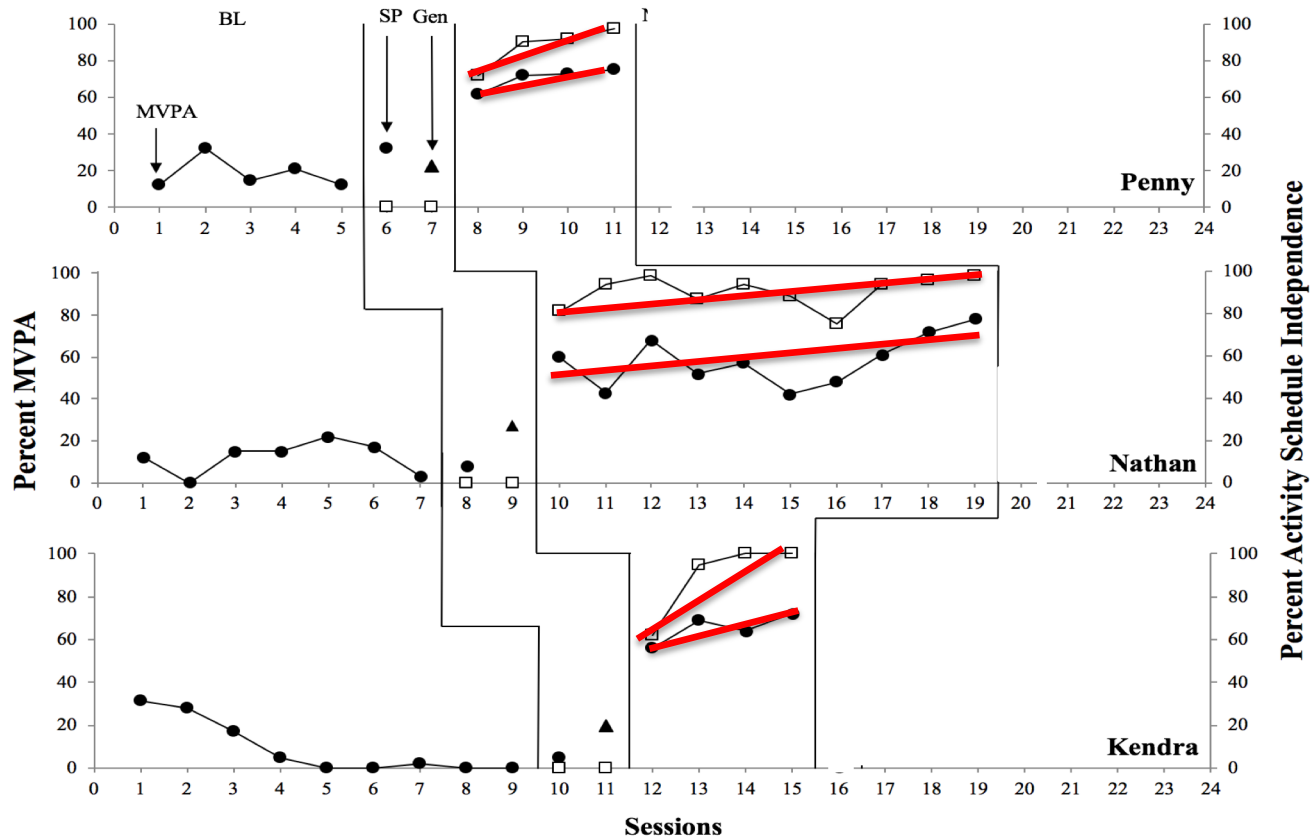
Baseline Example



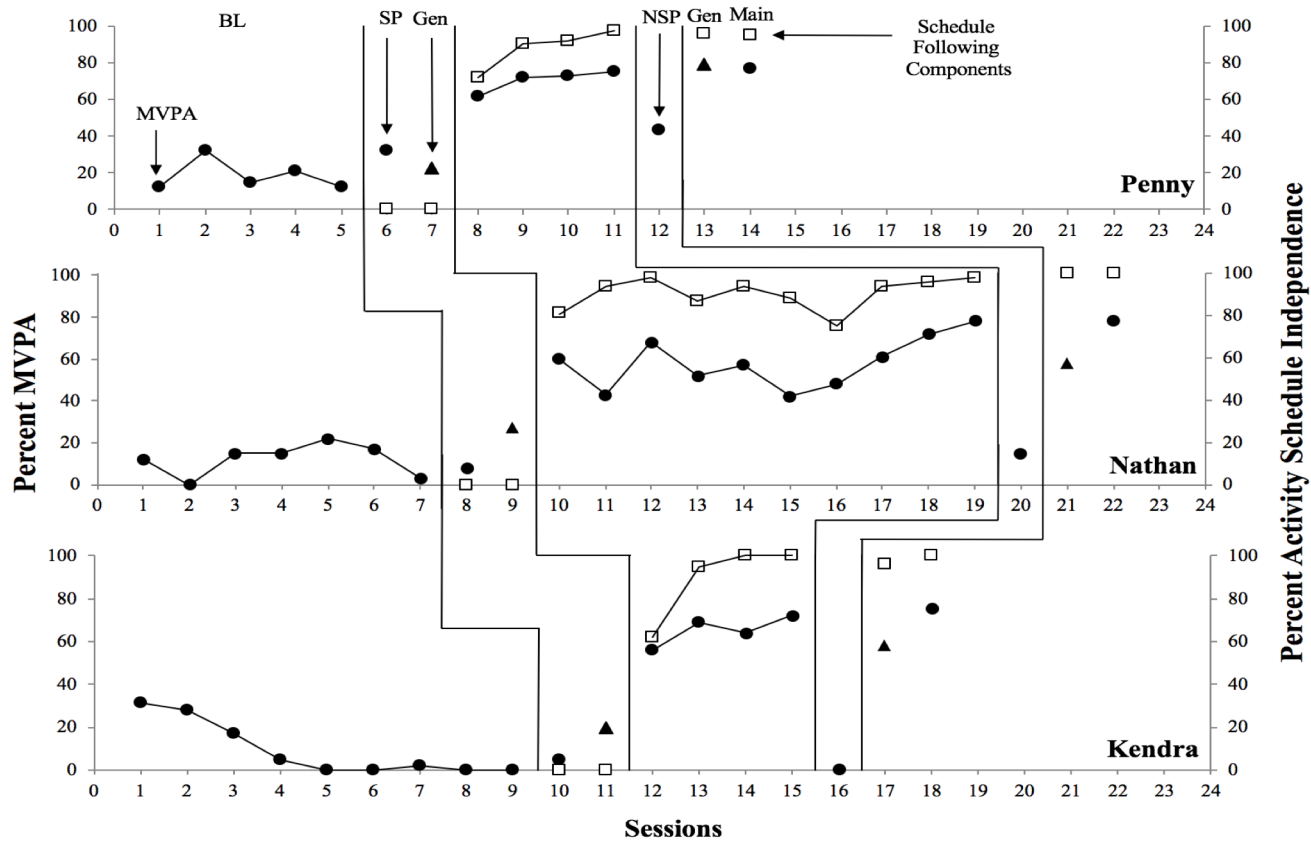
Activity Schedule Results



Activity Schedule Results



Activity Schedule Results



Video Example



Discussion

Varying levels of MVPA evoked during context assessments across conditions for all participants.

Future Research

Increase in MVPA after activity schedules were implemented

Increase the number of different activities completed

Appropriate social activities